

WHAT IS CLAIMED IS:

1. A shock absorber comprising:

a cylindrical housing adapted to be filled with a damping fluid, said cylindrical housing having an interior;

a piston slidably disposed within said cylindrical housing to divide the interior of said cylindrical housing into an upper working chamber and a lower working chamber;

a passage extending between said upper and lower working chambers and adapted to allow the damping fluid to flow therethrough during movement of said piston, said passage having an upstream end and a downstream end;

a valve seat located in said downstream end of said passage; and

a valve assembly normally seated on said valve seat and operable to selectively open and close said passage, said valve assembly including:

a first valve disc held on said valve seat;

a second valve disc retained on said first valve disc and including a plurality of apertures arranged in a circumferentially spaced relationship and selectively opened and closed by said first valve disc;

a third valve disc retained on said second valve disc and having a plurality of notches arranged in a circumferentially spaced relationship, said notches having an inner end and an outer end and cooperating with said plurality of apertures to form a plurality of ports, said ports being communicated with one of said chambers which is located downstream of said valve seat; and

a fourth valve disc cooperating with said second valve disc to sandwich said third valve disc so that a plurality of restrictive orifices are defined in the outer end of said plurality of notches,

said plurality of ports each having a cross sectional area greater than that of said plurality of restrictive orifices, regardless of relative angular position between said second and third valve discs.

2. A shock absorber according to claim 1, wherein said plurality of apertures of said second valve disc are circular in shape.

3. A shock absorber according to claim 1, wherein said plurality of apertures are all communicated with said plurality of respective notches regardless of relative angular position between said second and third valve discs.

4. A shock absorber according to claim 2, wherein said plurality of apertures are all communicated with said plurality of respective notches regardless of relative angular position between said second and third valve discs.

5. A piston assembly for a shock absorber, said shock absorber including a cylindrical pressure tube filled with a damping fluid, said piston assembly comprising:

an annular piston element adapted to be slidably disposed within said pressure tube and connected to a piston rod, said piston element including an upper valve seat and a lower valve seat;

an annular first valve disc positioned against one side of said piston element and having an outer peripheral

edge spaced from said lower valve seat;

an annular second valve disc retained on said first valve disc and having an outer peripheral edge normally seated on said lower valve seat, said second valve disc including a plurality of apertures arranged in a circumferentially spaced relationship;

an annular third valve disc retained on said second valve disc and having a plurality of notches arranged in a circumferentially spaced relationship, said notches having an inner end and an outer end and cooperating with said plurality of apertures to form a plurality of ports; and

a fourth valve disc cooperating with said second valve disc to sandwich said third valve disc so that a plurality of restrictive orifices are defined in the outer end of said plurality of notches,

said plurality of ports each having a cross sectional area greater than that of said plurality of restrictive orifices, regardless of relative angular position between said second and third valve discs.